REMARKS

After entering the above amendments, claims 14-16, 23-28, 31-35 will be pending. Reconsideration and allowance of the current application are requested in light of the above-marked amendments and the foregoing remarks.

Summary of Rejections. The Office has rejected claims 14-16, 23-26, 31-32 and 34-35 under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over U.S. Patent Application Publication No. 2002/0116505 A1 by Higgins *et al.* (hereinafter "Higgins") in view of U.S. Patent Application Publication No. 2003/0009418 A1 to Green *et al.* ("Green") and claims 27-28 and 33 under 35 U.S.C. §103(a) as allegedly being unpatentable over Higgins in view of Green and further in view of U.S. Patent No. 6,684,088 B1 to Halahmi *et al.* ("Halahmi").

Summary of Amendments. With this amendment, independent claim 14 has been amended to recite that instantiating of the inbound adapter is performed using an adapter engine that is configured to dynamically instantiate and host a plurality of inbound/outbound adapter pairs, each of the plurality of inbound and outbound pairs being instantiated for an associated data format used by one of a plurality of heterogeneous external data sources, each of the instantiated inbound/outbound adapter pairs can be configured, created, started, stopped, and terminated. Support for the amendment is provided, for example, at pages 12-13, paragraph 48 of the originally filed application. Independent claims 34 and 35, while reciting subject matter of different scope, have been similarly amended. No new matter has been added with this amendment.

Rejections under 35 U.S.C. §103

Claims 14-16, 23-26, 31-32 and 34-35 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over Higgins in view of Green and claims 27-28 and 33 stand rejected in further view of Halahmi. These rejections are respectfully traversed.

The standard set by the U.S. Supreme Court for a proper rejection under 35 U.S.C. §103 requires determining the scope and content of the prior art, ascertaining the differences between the prior art and the claimed subject matter, and resolving the level of ordinary skill in the pertinent art to determine if the differences would have been obvious within this level of ordinary skill. *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966), reaffirmed in *KSR v. Teleflex*, 550 U.S. 398 (2007). As noted in MPEP §2141.02 and §2143.03, this analysis further requires consideration of whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art at the time of invention. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). Merely distilling the claimed subject matter down to the "gist" or "thrust" of an invention disregards this requirement. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). For a proper rejection under 35 U.S.C. §103(a), the Office "bears the initial burden of factually supporting any *prima facie* conclusion of obviousness" and must therefore present "a clear articulation of the reason(s) why the claimed invention would have been obvious."

All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Thus, if the cited references fail to disclose or at least fairly suggest each specific and explicit limitation of the claimed subject matter, the Office can present a valid *prima facie* case for obviousness under 35 U.S.C. §103 only by presenting a convincing line of reasoning as to why one of ordinary skill in the art at the time of conception of the instantly claimed subject matter would have found the claimed invention to have been obvious in light of the teachings of the references. See *e.g.* MPEP §706.02(j) citing *Ex Parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

Independent claim 14 recites *inter alia* "instantiating, using an adapter engine implemented on the exchange infrastructure, an inbound adapter based on the data format used by the heterogeneous external data source, the adapter engine configured to dynamically instantiate and host a plurality of inbound/outbound adapter pairs, each of the plurality of inbound/outbound pairs being instantiated for an associated data format used by one of a plurality of heterogeneous external data sources, each of the instantiated inbound/outbound adapter pairs adapted to be configured, created, started, stopped, and terminated." Thus, an adapter engine, which hosts the instantiated inbound adapter of claim 14, is configured to dynamically instantiate and host a plurality of inbound/outbound adapter pairs, each of which may be associated with a particular data format used by one of a plurality of heterogeneous external data sources. Each of the instantiated inbound/outbound adapter pairs can be dynamically configured, created, started, stopped, and terminated (i.e., as the need arises in response to, for example, having to convert a new data type corresponding to a newly arrived data from one of the external data sources). A representative example of an implementation of the current subject matter including such features is described in paragraph [0048] of the original specification:

> [0048] Each adapter instance has a logical, unique name, and can be configured, created, started, stopped and terminated inside the adapter engine 502. Any number of adapters can be hosted inside the adapter engine 502, although preferably by default at configuration time one inbound/outbound adapter pair (i.e. messages into and out of integration server 206 respectively(is instantiated for each requested adapter type. For instance, if an adapter is instantiated for a particular file type, by default the adapter engine will instantiate an inbound file adapter 510 for receiving inbound message files, and an outbound file adapter 511 for transmitting outbound message files. The adapters can include JDBC adapters 512, JMS adapters 515, and/or their inbound/outbound pair. Other adapters can be configured for simple SOAP, Idoc, RFC, and plain HTTP message types. The correct outbound and/or inbound adapter can be selected dynamically via different types of endpoints. For example, a special type of outbound adapter could be activated using only the configuration of endpoints in the integration directory. The parameters necessary for calling a receiver, for

> instance, are at least a part of the endpoint (i.e., port, host, and/or destination) and one or more security objects.

Higgins describes improving access to information, or content, in response to queries from a client application in a client-server computer system (Higgins, page 1, paragraph 2). Particularly, Higgins describes a content provider system 174A that includes a content provider 170 (sub-divided into a content provider manager 276 and one or more protocol adapters 278) and an API adapter 272, and explains, in relation to the content provider and the API adapter that:

> [0039] In general terms, content provider 170 accepts calendaring and scheduling requests originating at calendar user application 165. Content provider 170 converts the format of a request received from calendar user application 165 to a target server specific format request, e.g., a format applicable for calendar server 280.
>
> [0040] Content provider 170 delivers the target server specific format request to target server 280. In response to the request, content provider 170 receives a target server specific format response from target server 280. Content provider 170 converts data returned from target server 280 to an internal binary format suitable for internal needs and suitable for presentation to calendar user application 165. Content provider 170 also monitors server calendar data on target server 280 to enable client notification in the event of relevant changes to the server calendar data.
>
> [0041] API adapter 272 maps requests from calendar user application 165 to requests for content provider manager 276. While a single API adapter 272 is shown in FIG. 2. This is illustrative only and is not intended to limit the invention to this specific embodiment. In another embodiment, API adapter 272 represents a plurality of API adapters.
>
> (Higgins, pages 2-3, paragraphs 39-41)

Higgins further explains that its protocol adapters, such as the protocol adapter 279 depicted in Higgins' FIG. 2, are used to provide an interface between internal protocol used within content provider manager 276 and calendar server 280:

> [0059] Ideally, all calendar services to which content provider manager 276 connects implement both of these protocols and then CAP requests are sent from a basic protocol module. However, this is not the case. Accordingly, therefore, protocol adapter 279 is used to provide an interface between the internal protocol used within content provider manager 276 and calendar server 280.
>
> [0060] Protocol adapter module 279 includes protocol adapter APIs 462. Protocol adapter APIs 462 provide interfaces for use by task processor 426 as well as protocol functionality common to calendar servers from the calendar service providers. A renderer 464 is used to render data in the internal binary format used within content provider module 276 to the iCalendar format. Protocol specific logic 466 provides the calendar service provider specific protocol functionality required to interact with calendar servers from the calendar service providers providing calendar server 280.
>
> [0061] iCalendar parser 468 is used to convert iCalendar data returned from server 280 to the internal binary format used within content provider manager 276. Accordingly, protocol adapter 279 provides an interface between the internal format used by content provider manager 276, and the external format used by connected calendar server 280.
>
> (Higgins, page 4, paragraphs 59-61)

Higgins' system appears to include an API adapter to map requests from the calendar user application to requests for the content provider manager and also to include one or more protocol adapters (such as the adapter 279) to provide an interface between the internal protocol used within content provider manager and the calendar server. Higgins, however, does not describe that any of its adapters can be dynamically instantiated, nor does it describe that any such adapters can be configured, created, started, stopped or terminated. Higgins also does not describe that any of its adapters are instantiated using an adapter engine that hosts the various instantiated adapters, and Higgins certainly does not describe that what is being dynamically instantiated are inbound/outbound adapter pairs.

Accordingly, Higgins fails to disclose or suggest at least the features of "instantiating, using an adapter engine implemented on the exchange infrastructure, an inbound adapter based on the data format used by the heterogeneous external data source, the adapter engine configured to dynamically instantiate and host a plurality of inbound/outbound adapter pairs, each of the plurality of inbound/outbound pairs being instantiated for an associated data format used by one of a plurality of heterogeneous external data sources, each of the instantiated inbound/outbound adapter pairs adapted to be configured, created, started, stopped, and terminated," as recited in Applicants' independent claim 14.

Green is directed to automated collection and compilation of information in a way which increases the reliability and the time freshness of the information (Green, page 1, paragraph 3). Green describes exchange of formatted messages both between an agent 102 and the central server 103 and between the central server 103 and one or more financial information sources 105-108. A message sent from the agent 102 to the central server 103 is generated at the agent 102 after the agent 102 obtains from a borrower 101 identification information 110, which includes information that financial information sources 105-108 required to identify their records that are associated with the borrower 101 (Green, page 2, paragraph 19).

Green, however, does not describe adapters (or any type of message generator or message converter) that can be dynamically instantiated; does not describe that any such adapters can be configured, created, started, stopped or terminated; does not describe adapters that are instantiated using an adapter engine that hosts the various instantiated adapters; and does not describe dynamically instantiated inbound/outbound adapter pairs. Indeed, Green does not even mention any "adapter", let alone an adapter and/or an adapter engine such as those recited in amended claim 14.

Accordingly, Green too fails to disclose or suggest at least the features of "instantiating, using an adapter engine implemented on the exchange infrastructure, an inbound adapter based on the data format used by the heterogeneous external data source, the adapter engine configured to dynamically instantiate and host a plurality of inbound/outbound adapter pairs, each of the plurality of inbound/outbound pairs being instantiated for an associated data format used by one of a plurality of heterogeneous external data sources, each of the instantiated inbound/outbound adapter pairs adapted to be configured, created, started, stopped, and terminated," as recited in independent claim 14 as presented herein.

Because neither Higgins nor Green discloses or suggests, alone or in combination, at least the features of "instantiating, using an adapter engine implemented on the exchange infrastructure, an inbound adapter based on the data format used by the heterogeneous external data source, the adapter engine configured to dynamically instantiate and host a plurality of inbound/outbound adapter pairs, each of the plurality of inbound/outbound pairs being instantiated for an associated data format used by one of a plurality of heterogeneous external data sources, each of the instantiated inbound/outbound adapter pairs adapted to be configured, created, started, stopped, and terminated," Applicants' independent claim 14, and the claims depending from it, are patentable over the cited art.

Independent claims 34 and 35, while covering subject matter of different scope than claim 14, recite "instantiating, using an adapter engine implemented on the exchange infrastructure, an inbound adapter based on the data format used by the heterogeneous external data source, the adapter engine configured to dynamically instantiate and host a plurality of inbound/outbound adapter pairs, each of the plurality of inbound and outbound pairs being instantiated for an associated data format used by one of a plurality of heterogeneous external data sources, each of the instantiated inbound/outbound adapter pairs adapted to be configured, created, started, stopped, and terminated," or similar language. For reasons similar to those provided with respect to independent claim 14, independent claims 34 and 35 are patentable over the cited art.

CONCLUSION

On the basis of the foregoing amendments, the pending claims are in condition for allowance. It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

A Petition for a two-month extension of time is concurrently filed herewith along with authorization for a credit card payment to cover the associated fee. No additional fees are believed to be due, however the Commissioner is authorized to charge any additional fees or credit overpayments to Deposit Account No. 50-0311, reference No. 34874-064/2003P00268US. If there are any questions regarding this reply, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

Date: June 21, 2010

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